ABSTRACT OF THE DISCLOSURE

A method for receiving packets from a network and distributing the packets to corresponding protocol processors, includes determining whether a received fragmented packet is a first fragment; if the received packet is the first fragment, looking-up its tunnel ID and its fragment ID, and comparing the result of the looked-up fragment ID with each list of a fragment look-up table, into which the results of fragment look-ups on received packets are entered, to determine if there is a corresponding list; searching an index corresponding to the tunnel ID of the received packet from a tunnel ID look-up table, and if the list conforming to the result of the looked-up fragment ID exists in the fragment look-up table, entering the index into the corresponding list of the fragment look-up table; and attaching the index as a tag to the received packet and transmitting the received packet to the corresponding protocol processor.